Components of a Regional Water Resources Plan

(as presented by TDEC to the Water Resources Technical Advisory Committee on 6/13/08 with comments received from WRTAC after the meeting)

1) Current water source information - Public water systems in the planning region will identify the sources being used including groundwater, reservoirs, streams, and connections to other utilities. This includes the capacity of both the sources and of the treatment and storage systems. Source information includes data on the available water from the surface and ground sources, and any seasonal fluctuation in the available water. Also, systems will provide the design capacity of the treatment and storage system and the maximum daily and monthly production and the average daily production in the past year. As possible, identify what sources are being used by self-supplied residences, industry, etc.

2) Current water use information - Public water systems in the planning region, will determine the population served, number of connections, percentage of water produced that is billed, discussion of how any significant loss is occurring. Include an estimate of amount of water used by self-served users, the location of service lines, the number and capacity of interconnections between systems and an inventory of the unserved areas in the planning region.

A significant driving force for regionalization might be the condition of the existing water treatment plants in regard to not only capacity, but the capability of meeting new drinking water regulations. We therefore, suggest that the plans contain assessment of the degree of treatment afforded by the plants in regard to the future required treatment levels and the ability to treat water from any proposed new sources (e.g. an existing plant treating groundwater only would likely not be suitable for a new surface water source). Regionalization might be the most economical way to meet new drinking water regulations. (**TVA**)

3) Available resource information - TDEC will provide information on factors that affect the existing sources such as T&E species, high quality or scenic waters, wetlands, impaired waters, location relative to other withdrawals or dischargers, potential threats to sources, etc.

This section suggests that TDEC would provide information suitable for an environmental review of alternatives and the "Public notice and opportunity for public comment" section specifically mentions a NEPA review. It is important to note that if an alternative is proposed that would require a federal action to implement it, the environmental review of alternatives should be structured to lend itself to later NEPA review by the appropriate federal agency. Federal agencies would not only include the U. S. Army Corps of Engineers and TVA, but EPA might be involved as a funding agency for the project. (**TVA**)

4) Projected water demand information - Public water systems will provide a 30-year to 50-year demand forecast, with basis, including the estimated demand of any areas the present systems expect to extend service to during that period.

Projected water demand information should be driven in part by local economic development goals and any official land use plans, including those adopted pursuant to Title 13 and to PC

1101, and by careful assessment of the local governments' and utilities abilities to support the growth driving the water supply demand with fees and tax rates that will be acceptable to the residents of the area. As stated at the meeting, our concern is that if infrastructure expenditures are not tied directly to broader land use and fiscal stability issues, then we may be fostering development that cannot be sustained. (**TACIR**)

5) Alternative source information - What alternative sources are available? Include groundwater, streams, potentially enlarged or new reservoirs. What are the resource issues associated with those, and are there legal issues with accessing the alternative sources.

Consider discussion of wastewater disposal systems regarding their potential contribution to downstream supplies. Treated wastewater might also be used as a source of irrigation water or other nonpotable water use to relieve stress on an existing source. It might also be a source of water for direct reuse in years to come as it is already in some areas of the country. **(TVA)**

6) Alternatives analysis - Are the present sources adequate for projected needs? If not, what new sources or alternatives including interconnection between systems, consolidation of supplies, new or larger ground and surface sources, high-flow harvesting and storage, trimming demand, etc., should be considered to be the best plan and why.

A financial plan would seem to be needed to determine how (or if) the communities to be served could pay for the proposed alternatives. For example, it was pointed out that it might be very difficult for one or even all of the communities in the Monteagle/SUD/Big Creek/Tracy City area to pay for a pipeline from the Tennessee River. In addition to the construction costs, long term treatment and pumping costs should be considered for projects. (**TVA**)

"Alternative source information" and "Alternatives analysis" sections
The party, who should gather the information and prepare the alternatives analysis, is not identified. It might be beneficial to identify the appropriate entity to complete these tasks. (**TVA**)

7) Public notice and opportunity for public comment - The public needs to be involved in water supply planning. For plans developed by the Corps, a NEPA review is involved.

8) Administration of the plan - What's the effect of the plan on future decisions in the region, how are changes made, who owns it and keeps it current?

Georgia has started its process of developing regional water plans for the state. One issue that immediately emerged is how to resolve competition between regions for the same water source. As the Tennessee regional planning process is in its infancy, raising this issue now might be a distraction, but as the Tennessee process evolves, Tennessee might have to determine what "rights" the plans bestow upon participants. For example, an approved regional plan might be viewed by participants as a future allocation of water from a particular source. If this is not what Tennessee has in mind, then it needs to be made clear at the beginning of the planning process. In addition, once the regional planning process gets going, the selection of regions will be important to minimize competition over supplies between regions. (**TVA**)